

# CLAIMS

1. An offshore flexible pipe comprising an unsealed flexible inner layer  
outer sealing layers, in which the sealing layers comprise, in succession:
  - 5 • an inner layer formed from at least one thermoplastic polymer (A);
  - optionally, a coextrusion tie layer;
  - a polyolefin layer.
- 10 2. A pipe according to Claim 1, which additionally comprises, on the same side as the polyolefin layer, in succession:
  - optionally, a coextrusion tie layer;
  - an outer layer formed from at least one  
15 thermoplastic polymer (B).
3. Pipes according to Claim 1 or 2, in which the polymers (A) and (B) are chosen from polyamides, blends of a polyamide and a polyolefin having a polyamide  
20 matrix, copolymers having polyamide blocks and polyether blocks, blends of polyamides and of copolymers having polyamide blocks and polyether blocks, polyetheresters and polyurethanes.
- 25 4. Pipes according to Claim 3, in which the polyamides are chosen from PA-11, PA-12, aliphatic polyamides resulting from the condensation of an aliphatic diamine having from 6 to 12 carbon atoms and of an aliphatic diacid having from 9 to 12 carbon atoms  
30 and 11/12 copolyamides having either more than 90% of nylon-11 units or more than 90% of nylon-12 units.
5. Pipes according to Claim 4, in which the polyamide is PA-11 or PA-12 and contains a plasticizer.
- 35 6. Pipes according to any one of the preceding claims, in which the tie is a functionalized polyolefin carrying a carboxylic acid or carboxylic acid anhydride

functional group, optionally blended with an unfunctionalized polyolefin.

7. Pipes according to any one of the preceding  
5 claims, in which the polyolefin of the polyolefin layer is high-density polyethylene.

8. Use of the flexible pipes according to any one of  
the preceding claims for transporting fluids in  
10 offshore oil and gas extraction fields.